MYCOTAXON

ISSN (print) 0093-4666 (online) 2154-8889 Mycotaxon, Ltd. ©2022

July–September 2022—Volume 137, pp. 399–434

https://doi.org/10.5248/137.399

Curtis Gates Lloyd: American mycological narcissist

Ronald H. Petersen

Ecology & Evolutionary Biology, University of Tennessee
Knoxville, TN 37919-100, USA

Correspondence to: *repete@utkedu*

Abstract: Curtis Gates Lloyd, self-taught but knowledgeable amateur mycologist, wielded inordinate power through his self-supported publications during the period 1885–1925. His idiosyncrasies were exhibited also during his extensive travel and residence in Europe. Two subjects drew his ire to specific workers: 1) Lloyd concluded that the numbers of fungi were limited, especially the mycota of Europe versus North America, so what he considered an inflated number of taxa was unwarranted; and 2) the accepted and "legislated" custom of adding the names of authors following nomenclatural binomials, which Lloyd considered personal 'advertising.' While the number of victims was measured in scores, four recipients of Lloyd's criticisms are selected and summarized: Lee Oras Overholts, George Francis Atkinson, George Edward Massee, and Edward Angus Burt.

Key words: criticism, mycological history

Chapter 1. Introduction

It was during a period at the turn of the 20th century in which specimens of the world floras (including 'mycota,' a word as yet uncoined) were making their way to the botanical institutions of Europe's capitals. Most of Africa, much of Southeast Asia, and the large islands of the South Pacific were all colonies of a few European countries.

The mycological taxonomic literature of Europe was already largely codified, and the foreign specimens had to be collated into the prevalent outline. Following the early leaders (Persoon, Nees von Esenbeck, Link,

Batsch, Ehrenburg, Fries), Europe's larger fungi were thought to have been brought to order, but the American fungi were still largely uninvestigated. What species had been described had come from correspondents in America, submitted to mycologists in Europe. Chief among the Europeans was Miles Joseph Berkeley, a cleric associated with the Royal Botanic Gardens at Kew, a suburb of London. But in the United States during a brief period in the 1870–1890s, agriculture colleges and agricultural experiment stations had blossomed (Petersen 2019), and educational progress was becoming increasingly possible.

In the United States, two workers, both barely mycologically educated, were weaning the mycological community away from Europe: Charles Horton Peck, the State Botanist in Albany, New York, and Job Bicknell Ellis of Newfield, New Jersey. Peck not only collected, examined, and described many species he considered new but selflessly helped countless other aspiring amateurs. Ellis, conversely, amassed many specimens for distribution as sets ("exsiccati") to subscribers. Aside from a small handful of local publications of botanical and/or mushroom clubs, no professional journal in mycology was available. The closest items were PHYTOPATHOLOGY for a plant pathology audience of all stripes and JOURNAL OF MYCOLOGY, which at that moment was in a suspended state.

Two self-taught mycologists took their place in the US mycological community. Andrew Price Morgan (1836–1907) was a retired teacher who learned Latin in order to read the botanical literature from Europe while recuperating from some nervous disorders. He sent specimens to Peck and other workers and gradually felt able to publish on some mushroom genera. Curtis Gates Lloyd (1859–1926), introduced to fungi by Morgan, was a partner in Lloyd Brothers Pharmaceutical Company and used his wealth to publish both what he learned and what he conjured. Blackwell & Powell (1996) provide a good introduction to Lloyd's role in the mycological taxonomic community.

The ethics of scientific publishing were already in place: pre-publication manuscript reviews, often writing in the plural (the "royal 'we'"), gentle and circumspect criticism, and careful citation of previous literature. However, Lloyd was either ignorant of such things or set out to violate them. Using his personal funds, he published his own work for distribution to anyone who would send him specimens. Several of his iconoclastic innovations produced amusement for recipients, but he seemed unable to hold his pen in check. The victims of his pique reacted in their individual ways. The narration below selects four such workers and the arrows shot in their direction by Lloyd. In

Fig. 1. Curtis Gates Lloyd.
Stevenson & Cash (1936)

each case, a very brief (hopefully dispassionate) biography is followed by a narrative dealing with Lloyd's writings on that individual and his work.

Chapter 2. A sense of Lloyd

Marinus Anton Donk, a world-famous mycologist and nomenclaturalist, remarked to more than a few people that "he believed Lloyd set back North American mycology by 50 years because of his [Lloyd's] intimidation of its mycologists" (Burdsall & al. 2010; Petersen, pers. comm.).

Curtis Gates Lloyd (17 July 1859–11 November 1926; Fig. 1), native of northern Kentucky and apparently unschooled past high school, grew up appreciating the local flora. Learning his "simples" (medications compounded from local vegetation), he worked for the local pharmacy in Crittenden at 15 years old (Simons undated). At 18 he moved to Cincinnati, again working for a pharmacy for $5 per week. In 1886, he joined his two brothers to form Lloyd Brothers Pharmaceutical Company in Cincinnati.

Around 1890, Lloyd was introduced by A.P. Morgan to the study of fungi, a fascination that soon became Lloyd's major interest. By 1918 at age 59, he was able to withdraw from the family business to devote his entire attention to mycology. He used his continued liberal income from Lloyd Brothers for extensive travel and residences in the surroundings of the great herbaria of Europe and the cost of his own series of mycological publications. Unencumbered by reviewers and editors, he was able to (and did) express himself freely. Lloyd died in 1926 after being awarded an honorary D. Sci. from the University of Cincinnati that June (Fitzpatrick 1927; Simons undated).

In 1920 (his 61st year) Lloyd had been asked to submit an autobiographical sketch for use in a local newspaper and decided to reprint the brief sketch in his own journal (in the third person) [Lloyd 1920: 1025–1026]: "Mr. Lloyd is the owner of a fine farm, embracing about four hundred acres, near Crittenden, KY. Being a lover of flowers he devotes a large part of his time to the establishing of flowers in mass along the pike frontage of the farm. This farm will also be placed in the hands of a Trust Company to be maintained perpetually and a sufficient fund provided to take care of its expenses.

"Being an old bachelor and having very modest personal expenses, Mr. Lloyd has funds to devote to the maintenance of the [Lloyd] library [in Cincinnati, Ohio] and flower garden for the pleasure and profit of the public."

The following quote by Hesler (1975 see also Petersen 2019) stands as 'Exhibit A' demonstrating Lloyd's nonchalance: "Shortly after coming to Tennessee [1919], I took occasion to ship a few polypores and related things to [Lloyd].

He responded promptly, and asked for more, which I continued to send for some time. One hot September day, I had stopped overnight in Cincinnati, and went to see Mr. Lloyd at his herbarium. I found the place, stepped to the front door and rang the bell. I saw an older man sitting very close to, but with his back to the open door. He was attired in only blue-jeans and an undershirt, and no shoes. I continued to ring, but he seemed to pay no attention. Finally, the housekeeper answered with a 'ye-e-e-ess?' I said I wished to see Mr. Lloyd. She replied: 'Right here.' and pointed. Finally, I gave her my name, whereupon he wheeled around, greeted me heartily and then took me (he bare-footed) all over the herbarium.

"I asked what he intended to do with his enormous collection. He said: 'Some good institution will get it.'" That institution turned out to be the Smithsonian Institution and his collections now reside at the Department of Agriculture, Beltsville, Maryland.

"By any measure, Lloyd had a charitable vein. While considerable money was spent on his mycological pursuits, including extensive travel and the Lloyd Library and Lloyd Museum in Cincinnati, he also purchased, usually sub rosa, selected sites for public enjoyment. In the case of Woodland Park, in Kentucky, he (Lloyd 1915a) reproduced a short newspaper clipping, a footnote to which was self-explanatory: "Footnote: The above article, while not strictly mycological, will throw a sidelight on the character of the author of these letters, perhaps, not generally known to our readers."

Professor Harry Morton Fitzpatrick (1927) noted how Cornell benefited from Lloyd's quiet generosity: "The writer [Fitzpatrick] first met [Lloyd] when he came to Ithaca, in 1919, to examine the larger *Pyrenomycetes* in the Atkinson herbarium. Mr. Lloyd was much impressed by the natural beauty of Ithaca, and more especially by the richness of the fungus flora. We spent a pleasant week collecting with him and after he had gone, we learned that he had quietly and without ostentation purchased one of our favorite collecting grounds, an 800-acre tract of cold upland sphagnum bogs surrounded by wooded hills near MacLean, N.Y. It was thus preserved against grazing and logging operations and having been fenced and provided with a little laboratory building, it affords an ideal opportunity for field work in various phases of mycology. It is called the Lloyd-Cornell Reservation. Later, Mr. Lloyd purchased 436 acres of wild land nearby, at Slaterville Springs, designating it as a wildflower preserve. And shortly before his death he added a third, a pot-hole region in beech woods at Ringwood Hollow. Thus, three of the favorite collecting grounds at Cornell were preserved for future generations of students. All of these reservations were

placed by Mr. Lloyd in trust under the local management of a member of the biology staff of the Cornell faculty. He will long be regarded by local botanists as one of our most liberal benefactors."

To generosity must be added Lloyd's decidedly complicated personality. Hesler (1975): "That Lloyd had a sense of humor could hardly be disputed. At an AAAS meeting in Cincinnati, he showed up in the hotel lobby. He was showing all the professors a very unique cup-fungus. He had them all puzzled, even the discomycete specialists. Finally, it developed that his specimen was of clay — a model he had prepared for the occasion." Of course, Lloyd's prank was intended to show the fallibility and inadequacy of "the Professors," a persistent target through Lloyd's professional life.

To symbolize his harsh judgment of nomenclatural conventions, Lloyd introduced Tso Kay, a Buddhistic effigy. The symbol initially appeared without explicit explanation until Lloyd (1924a) provided a formal introduction: "Permit us to introduce Tso Kay [Fig. 2], the little god who's [sic] smiling face brightened the dead walls of London in recent years. I do not know what cult he originally represented. I understand a very worthy one, but there is behind his cheery countenance just a little hint of hypocrisy that symbolizes much of the work done in mycology. In these sheets he presents chiefly the cult of Kuntzeism and other name jugglers, who propose legions of 'new combinations' to which their own name is invariably added and pretend they do it under the obligations of priority. There is a lot of hypocrisy always in connection with name juggling.... Tso Kay will probably be kept busy in the future, and we hope his efforts will afford others as much amusement as he does the writer."

Regarding his tendency to take center stage, Lloyd (1917a: 6) wrote, "Prof. [Calvin Henry] Kauffman, whom I met in Sweden, told me that my writings impressed him that I wished to be the 'whole show.' I took no exception to it, for I have no doubt but that is the impression my writings had on him. I do not wish to be the 'whole show' for there is room for everybody."

In a personal letter, Dr. Josiah Lowe (23 October 1975, pers. comm.) wrote: "Certainly in print he was as abrasive as they come. At Kew I learned to my total surprise that in direct contact he was very, very different. He was very soft-spoken, very considerate, anything but the bull-in-the-china-shop we generally think of him. One story: Lloyd was an inveterate smoker. At Kew the rule is absolute – no smoking in the herbarium. Good rule, as the cases were wooden (guess they now have metal cases). Lloyd forgot once, was puffing away vigorously when he became conscious that there was a tremendous excitement going on, the staff running about saying something is on fire! Lloyd somehow

Fig. 2. Tso Kay.
Lloyd. Mycological Notes No. 72: 1267. 1924.

doused his cigar, fled to the backdoor and outside, and stayed away until the excitement subsided. Guess he told Miss Wakefield, who told me this story."

Lowe continued: "When you work through the Lloyd specimens and read the notes with the collection it is clear that Lloyd wasn't half as certain in actuality as he was with pen in hand. He died before I got into the polypores — I would have loved to have met him and consider myself very lucky that I got well-acquainted with Murrill and with Overholts before they died."

And then, there was the Osler vignette. In 1924b, Lloyd wrote: "It is probable, however, that I will not continue in this work much longer. But if I stop, I will turn it over to someone else. Another reason is my old eyes are wearing out and I cannot see things as clearly as one should, to decide many questions that

arise. I have, however, a pair of young eyes which I am training at Kew and will probably depend on them for help in this time. Another reason is I am an old man now [at 65], and my observations are [also], and I am well convinced, that most old men make fools of themselves, I cannot expect to be any exception to the general rule. I hope before the condition arrives, however, that some of my friends will get out the chloroform bottle, for *Osler was surely right* [his italics]."

By way of explanation, the Canadian physician Sir William Osler (1849–1919) and one of the four founding professors of Johns Hopkins University was a reputed practical joker. Osler was well known in the field of gerontology for the farewell speech he gave upon leaving Johns Hopkins to become the Regius Professor of Medicine at Oxford, England. 'The Fixed Period,' delivered in February 1905 (at 56 years of age), included some controversial ideas about old age. Osler, who reputedly had a well-developed humorous side, mentioned Anthony Trollope's The Fixed Period (1882), which envisaged a system in which men (no mention of women) retired at 67 and after being given a year at an idyllic "college" to settle their affairs, would be "peacefully extinguished by chloroform." Osler claimed that "the effective, moving, vitalizing work of the world is done between the ages of twenty-five and forty" and it was downhill from then on.

In an unpaged insert to Mycological Notes 74 (March 1925), Lloyd again communicated his thoughts on old age. Near his birthplace in Crittenden, Lloyd had a stone monument placed, similar to grave markers (Burdsall & al. 2010). Chiseled into the granite: "Born in 1859. Died 60 or more years after. The exact number of years, months and days he lived nobody knows and nobody cares. Monument erected by himself, for himself, during his own life, to gratify his own vanity. What fools these mortals be."

But this observation wasn't enough. In the same printed insert, Lloyd took the opportunity to throw another bomb. "The monument is first a burlesque on tombstones in general and second a satire on personal vanity, including the writer's and some other 'old gentlemen' he knows. The usual tombstone is a parody of the virtues and vital statistics of the deceased, of no possible interest to anyone else, and he is dead. Everyone is more or less vain and some so possessed with the idea, especially in their old age, that they are a nuisance to their friends and acquaintances. They seem to think that they are so important to the world, that when they die, the sun will stop, or if it does not stop, it will pause a little." This is followed by a paragraph on Lloyd's favorite shibboleth, too many "new species" and personal nomenclatural advertising. Finally: "The

monument was intended as a hit at all these forms of vanity and particularly a satire on one or two old gentlemen. One thinks that he is so learned that he can pass on questions of fungus history that he knows nothing whatsoever about, and never had the slightest opportunity to learn, and controverts the published conclusions of another who has had the opportunity and spent a lot of time trying to learn the straight of it. That may be vanity, too, but it is a fact. We can only add from the tombstone what Shakespeare or Puck or someone else says: WHAT FOOLS THESE MORTALS BE!! [caps his] Particularly Mycologists when they get past the Osler age."

Chapter 3. Lee Oras Overholts

Lee Oras Overholts (23 June 1890–10 November 1946; Fig. 3) was born in Camden, a small, rural hamlet in far-western Ohio. Although his early years and schooling have not been recorded, he attended nearby Miami University in Oxford, graduating in 1912 with A.B. degree. There he came under the mentorship of Professor Bruce Fink, an able and inspiring botanical teacher and lichenologist. Even as an undergraduate Overholts developed an interest in the 'pore fungi' and at the end of his junior year (Overholts 1911) he wrote and published his first paper entitled 'The known *Polyporaceae* of Ohio.'

During the spring of his senior year (1912), Overholts was recommended by Fink to assist J.C. Arthur's work with the rusts at Purdue University, which was where he first met Frank Kern, then an instructor. After graduating from Miami University, Overholts spent three years (1912–15) in graduate studies at Washington University (St. Louis). His continuing interest in the polypores was guided by association with Dr. Edward A. Burt (more below) of the Missouri Botanical Garden. Three important and extensive papers on the *Polyporaceae* followed (Overholts 1914, 1915a,b). After receiving his Ph.D. degree from Washington University in 1915, Overholts' previous association with Kern (by then department head at Pennsylvania State University) led to an offer of an instructorship at Penn State. In addition to numerous smaller publications, in 1936 he was a joint author of a botany textbook (Hill & al. 1936). At death, he left a book-length manuscript, The *Polyporaceae* of the United States, Alaska and Canada.

During his career at Penn State, Overholts was considered an excellent teacher and mentor. As his biographer (Kern 1948) reported: "All his life [Overholts] was a prodigious worker, not sparing himself in health or in illness. Nights, Sundays, holidays, and vacations were occasions for furthering the work so well begun during regular days and hours. However, he was also

an ardent trout fisherman and always looked forward to the opening of the hunting season."

Professionally, Overholts served the Mycological Society of America as Councilor, Vice President, and President. He was also a member of Sigma Xi, the Pennsylvania Academy of Science, the Torrey Botanical Club, and several honorary Greek-letter societies.

Kern (1948) wrote: "[Overholts'] last illness had kept him away from work only for a week. For the last five years his health was impaired but except for short periods he had kept tenaciously at his work."

In 1911 a mycological paper appeared in the Ohio Naturalist, written by the then unknown Lee Oras Overholts and purporting to be an annotated list of the polypore taxa reported to occur in Ohio. On his opening page, Overholts (1911) wrote: "The writer wishes to express his thanks to all who have aided in the preparation of the paper. Especial thanks are due to the Lloyd Brothers of Cincinnati, for free access to the literature contained in the Lloyd Library; to Mr. C.G. Lloyd for his determinations and verifications and for access to his excellent herbarium; to Mr. W.A. Murrill for determinations and verifications, and to Dr. Bruce Fink under whose direction the work has been done.

"The nomenclature followed is that of Mr. W.A. Murrill in his monograph of the family. The most generally used synonyms have been added to correlate this paper with other writings on the family." The 118 species were spread across 39 genera, a tempting target for Lloyd's pen. What was not written — Overholts was a 21-year-old junior undergraduate when he wrote the paper, encouraged by Dr. Bruce Fink, his mentor at Miami University.

Overholts' (1911) paper set off a series of derogatory comments published by Lloyd. Little criticism was aimed at the number of species accepted by Overholts, but Overholts followed (as he stated) the generic arrangement used by Murrill in his monograph of the family. In addition, the paper also accepted the rules of nomenclature adopted at the Brussels Botanical Congress in 1910, and Lloyd subsequently levelled his ire at the 'law-makers' at that Congress, including mycological delegates whose names read like a who's who of the science. A few of these attendees also became Lloyd's incessant targets. Overholts' (1914) second paper drew a more positive review by Lloyd (1915b), but Lloyd could not resist reminding his readers of his distaste for the previous paper, as follows: "...I am gratified that Mr. Overholts has gotten back to the realms of rational mycology. I presume that this is due to the

LEE ORAS OVERHOLTS
June 23, 1890–Nov. 10, 1946

FIG. 3. Lee Oras Overholts.
Mycologia 40. 1948.

conservative influence of Professor Burt [Edward Angus Burt, graduate of Harvard, professor at Middlebury College and by 1915 on faculty at the Henry Shaw School of Botany at Washington University, St. Louis. More below]. In his previous paper he was no doubt influenced by Professor Bruce Fink, who does not know enough about fungus to form an opinion of the merits of such things, and Overholts' previous nomenclature was about as intelligible as a Chinese laundry ticket."

Josiah Lowe, successor to Overholts in his work on polypores, related to Dr. Marinus Anton Donk (who passed it on to me; pers. comm.) that Lloyd's scathing judgment on Overholts' (1911) early nomenclature caused a retreat by Overholts from internationally approved, formal, 'legislated' nomenclature as well as acceptance of numerous 'split genera' (i.e., *Hydnoporia, Fuscoporia, Fomitiporia, Fomitiporella,* etc.). Once burned, twice cautious. Overholts consequently adhered to shortened nomenclature and fewer genera for the rest of his career. Lloyd's words, which were not jocular, had wounded this young mycologist.

The Murrill polypore monograph cited by Overholts (1911) was a series of monographic treatments of numerous genera under the general title of The *Polyporaceae* of North America (Murrill 1902, 1903a,b,c,d, 1904a,b,c,d, 1905a,b,c, 1906). At least two ingredients ran afoul of Lloyd's self-generated code: 1) Murrill's recognition of multiple genera in the family and 2) his citation of each species binomial followed by its originating author of the epithet (in parenthesis) followed by the name of the worker who placed the species in the genus accepted by Murrill. The former, of course, was the opinion and discretion of any publishing worker, just as it is to this day. The latter was a fastidious adherence to the Code of Botanical Nomenclature (whether the prevailing international code of that day or the 'American Code,' a more explicit outline later largely adopted and merged into the International Code).

But Overholts was only a surrogate target for Mr. William Alphonso Murrill whose nomenclature Lloyd (1911) had written previously (more below). Under the heading 'History of the juggling' (transfer of a species from one genus to another followed by the name of the transferor, viewed by Lloyd as excessive 'advertising'): "And last but not least, our own Mr. Murrill made the remarkable discovery that [*Polyporus*] section *Ovinus* of Fries was the same as [genus] *Scutiger* in the sense of Paulet, and on the strength of this wonderful discovery wrote the name "Murrill" after each of the dozen (alleged) species that he considered." Footnote: "Paulet was one of the first

crude writers on fungus and did not have the most vague notion of their relationships. He [Paulet] included in *Scutiger* two polyporoids [sic], four hydnums [sic], and an agaric [sic]. How Mr. Murrill reached the conclusion that this misfit aggregation of Paulet's is the same as the section *Ovinus* of Fries we will leave to our readers to guess. It is beyond our comprehension."

Lowe's 1975 (pers. comm.) letter continues: "But much of Overholts' [later] conservatism was due to E.A. Burt, I'm sure. The work on Ohio polypores was a master's thesis under Bruce Fink, and Lloyd's blasts were aimed mostly overtly at Fink, whom Lloyd thought was totally ignorant of polypores. Burt would surely have reinforced any tendency Overholts had of reverting to old-style polypore taxonomy, and I at least give complete credit to Burt for the inclusion of microscopic data in Overholts' [next papers, which] give microscopic data for some species, and consistently did so in the later work."

Early the next year, Lloyd (1912) again took Murrill to task. "The last man to engage in this line of name changing is Mr. Murrill, who has no more trouble discovering 'new genera' and concocting new names than if there had not been three men doing exactly the same thing with the same plants before him. I question if there is an institution or mycologist in Europe that attaches any importance or pays any attention to this kind of work, and very few in America. In my opinion such work is of little value or avail."

By mid-1915, Lloyd was aware of Overholts' second paper on polypores, but Lloyd's (1915b) opinion of Murrill had not changed. "In quite recent years Murrill has published much. He has proposed so many new names and made so much confusion that no one pays much attention to them. At the present time young Overholts is doing much better work on the subject." Remember, this was 1915; in 1911, Overholts had followed Murrill's classification scheme before abandoning it in favor of a more conservative approach, no doubt helped considerably by Lloyd's initial attack.

The following year Lloyd again took aim at Overholts, but Overholts (1916b) had already been wounded and had changed his writing style (see extracts from Lowe letter above). Lloyd wrote: "It is extremely gratifying to me to be able to give a strong approval to a work issued on mycology. It is an excellent work. It is the first comprehensive and reasonably accurate account that has been given on the subject. Mr. Overholts has selected his names, in most instances, I think, with good judgment, and practically all are of established usage." There follow 1.5 pages of 'Discrepancies in Mr. Overholts' paper.'

In the same Mycological Notes in a mixed blessing for Overholts, Lloyd (1916a) again directed his aim at Murrill, here worth repeating. "A general alarm has been sent out by the New York Botanical Garden for four species of Agarics that mysteriously escaped having Murrill's name affixed in a recent issue of their publication. It was the intention to add the name of Murrill to all 111 species, but by some slip four got away. A liberal reward will be paid to anyone who will capture one of these mavericks and bring it back into the fold." The effect this may have had on Murrill is not known, although he continued to publish unabated.

Soon, Overholts changed his research interest to other botanical topics out of reach of Lloyd's pen, but his interest in the polypores never died. He gathered a book-length manuscript, complete with many photo illustrations until 1933. The task of putting the manuscript through the press fell to Josiah Lowe (Overholts 1967). In the preface, Lowe wrote: "The final draft of this manual was written by Dr. Lee Oras Overholts in 1933, after twenty years of work at Pennsylvania State College as the foremost American specialist in the *Polyporaceae.* Until his death in November 1946, at State College, he corrected the manuscript continuously as new information became known, though he made no overall revision. For six months before his death Dr. Overholts had been actively putting the manuscript in shape for publication, and, as left, it was substantially complete." The family *Polyporaceae* was spread across eight genera. In a forward to the second, unchanged edition, Alexander H. Smith included a list of the 43 genera and numerous species in the manuscript as arranged in the genera of the day (1967).

In the 23 October 1975 (pers. comm.) letter quoted above, Lowe related: "About a year before he died Overholts said to me that the taxonomy of the polypores needed revision, and that he thought the system proposed by Patouillard was the best available. I suspect he did not adopt it because, from about 1930 on, he was unable to make the sections and do the other work required to check the concepts. In 1944 when I was there [at Pennsylvania State University], his microscopic studies were secured by teasing out a minute piece of the hymenial areas with needles, taking ½-1 hour for each mount. Of course, I [Lowe] quickly fell into the routine of preparing sections for him of anything of mutual interest."

Overholts published a series of 13 papers, generally chronological and called 'Mycological Notes' (Fergus 1955). One must wonder whether they were innocently titled or, perhaps, intended to reference Lloyd's voluminous series of the same name.

Chapter 4. George Francis Atkinson

Born in the hamlet of Raisinville, Michigan, George Francis Atkinson (26 January 1854–14 November 1918; Fig. 4) was prepared in local schools. According to Dawson (2007), Atkinson told a group of students that he ran away from home at the age of 13, "barn-storming" all the way to South Dakota. Recognizing that an education was the key to personal progress, Atkinson returned home and at 24 years old took some remedial courses at Olivet College in 1878. After a short time, though, he transferred to Cornell University, where he took botany courses under Albert Nelson Prentiss and William Russel Dudley (Korf 1991, Petersen 2021) and in 1885 was awarded a B. Phil. (these days an A.B.). Instead of pursuing an advanced degree, Atkinson embarked on a tour of southern institutions, beginning with three academic years (1885–88) at the University of North Carolina. After a single academic year (1888-89) at the University of South Carolina he moved to a newly created position as Professor at the Alabama Agriculture and Mechanical Institution (now Auburn University) for three academic years (1889–92). His chief occupation centered on plant pathology throughout, but he did publish occasionally on much wider subjects, including entomology, zoology, ornithology, and botany.

Fresh from Alabama A&M (where he had been awarded an honorary M.A.), Atkinson returned to Cornell in 1892 as Assistant Professor of Botany. His duties were divided between the Liberal Arts campus in Ithaca and the Agricultural Experiment Station, some 50 miles to the north in Geneva. In 1896, upon the death of Albert Prentiss, Atkinson succeeded as Botany Department Head (in the College of Liberal Arts). Delayed by more immediate tasks, Atkinson (1897a) published the significant paper 'Some fungi from Alabama.' In its introduction he wrote: "In the determinations of the Basidiomycetes Mr. A.P. Morgan of Preston, Ohio, has from time to time given great aid and as well as Dr. Chas Peck of Albany, N.Y., and Mr J.B. Ellis of Newfield, N.J. to all of whom I wish to express my sincere gratitude." During his tenure as Botany Head, New York state established the State College of Agriculture at Cornell with a second department of botany (Petersen 2021), and the Liberal Arts Botany Department slowly waned, eventually to be disbanded. On a protracted collecting trip with students and assistants to the slopes of Mt. Rainier in 1918, the rest of the party returned to campus as the weather turned colder. During a storm Atkinson contracted influenza and died just a few days after the November 11 armistice ended World War I. Atkinson was elected to the National Academy of Sciences in 1918, and his life was celebrated widely (Fitzpatrick 1918, Farlow & al. 1919, Hesler 1975).

Almost as soon as Lloyd could express himself mycologically, he opined that America was in serious need of a popular book outlining the mushrooms (i.e., agarics) for the country. Lloyd (1899a) held C.H. Peck in high regard. He reported: "Prof. Chas. Horton Peck, of Albany, N.Y., has collected about fifty specimens in alcohol. Prof. Peck has been an active student of our native agarics [mushrooms and relatives] for upward of thirty years and has contributed more than all others together to our knowledge of these plants. We will recognize him as our authority on American agarics and to a set of authentic named specimens by him, we attach the greatest value. We appreciate the kindness all the more, as we feel that Prof. Peck himself does not place much value on alcoholic specimens."

As early as 1899 Lloyd (1899b) laid out his frustration. "Why can we not have a manual of Agarics? We believe that but one man in this country, Prof. Chas Peck, has a wide and critical knowledge of growing agarics, and, we hope, he can be induced to give us a manual."

However, as Peck demurred from such an activity, Atkinson first published a large bulletin from the Cornell Agricultural Experiment Station on the region's mushrooms (Atkinson 1897b), later expanding the bulletin into a book (Atkinson 1900, 1901). In one book review, Lloyd (1906) wrote: "Unfortunately there is no one book of much service. I always advise my correspondents to buy first Atkinson's 'Mushrooms, Edible, Poisonous, etc.' It is the best book we have. It is only a primer and does not consider one out of twenty of the agarics you will meet every season, but you can derive from it a general idea of classification. It is a difficult matter to get a 'start' in American mycology, and I have reason to know that Atkinson had a hard enough time to learn what he knew at the time he wrote the book. So I believe he should have all praise for what he has done, not hiding the fact that there is a great deal of room to do much better as he learns more of the subject."

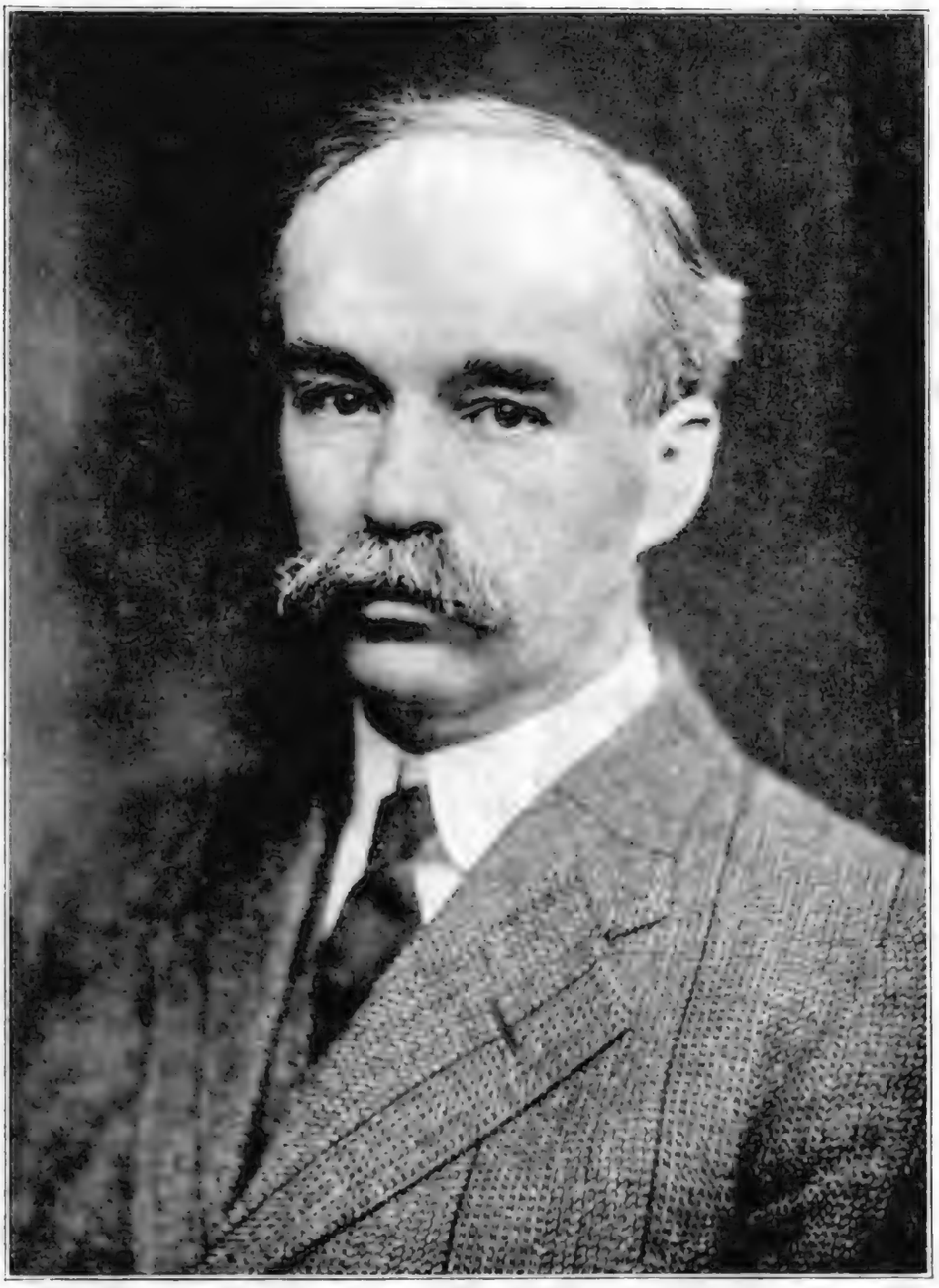
Atkinson was easily offended and suffered from self-effacement (Hesler 1975; Petersen 2019). Having smarted from Lloyd's pen, he was further affronted when Lloyd (1907a) compared Atkinson's photographic illustrations with Emile Boudier's exquisite aquarelles. In response, Atkinson took pen in hand, writing to Lloyd: "I presume you know that the Library at Cornell at my instigation has been from the first a subscriber to Boudier's Plates for a complete set. When I was in Paris in 1903, I spent half a day looking through Boudier's original illustrations with him. I recognized in them at that time the finest illustrations of this character which I had ever seen. Added to Mr. Boudier's talent as an

MYCOLOGICAL NOTES.

BY C. G. LLOYD.

No. 59.

CINCINNATI, O. JUNE, 1919.



GEORGE F. ATKINSON

FIG. 4. George Francis Atkinson.
Lloyd. Mycological Notes No. 59. 1919.

artist, we have the work of a very careful scientific man in connection with accurate mechanical work in measuring and obtaining the exact proportions of the different parts of the plant. At that time, he told me his method was to obtain absolute accuracy of form and proportions. I regard them as the finest set of Mycological plates which have ever been published." In his opening sentence, I [RHP] detect some defensiveness. Did Atkinson perceive some unfairness in the comparison? A tirade would follow only three months later.

Lloyd (1907b) told the following story: "Mr. [William Henry] Long states that Atkinson's 'new genus' *Dictyobole* is based on *Simblum Texense,* and Mr. Long ought to know for it was he who sent Professor Atkinson the material on which the genus was based. It seems that when Long was a student at Cornell under Professor Atkinson he left him some eggs of a phalloid that developed into something that looked strange to Atkinson. He [Atkinson] drew a picture of it (that has no possible resemblance to the plant, see fig. 64 page 130) and on this figure the new species and genus '*Dictyobole Texense*, Atkinson and Long' was based. Long's name seems to have been added in the nature of a 'jolly' for he [Long] writes me [Lloyd] it was done without his knowledge or consent. It is an illustration, however, of the usual value of these advertising formulae as applied to 'science.' After the 'new genus' had been published, Mr. Long sent me some dried specimens and while I did not claim to know much about phalloids, I recognized that it was an old genus that was well known and well illustrated before Atkinson was born, and I thought it was probably an old species (*Simblum gracile* of Ceylon) as well. The whole story is illustrative of the troubles that are liable to overtake those who start out their search for new species before they learn the old genera."

In another book review, Lloyd (1909) wrote: "Atkinson's book, a few years ago, which was the first step in the right direction, was an immature publication. The author had not learned a great deal of his subject when he went into print and the result was a fragmentary account, good as far as it went, but it did not go very far. [Miron] Hard's [1908] book [see Petersen 2020] will supply much of this deficiency. "[Hard's] book is a practical demonstration of the value of photography in mycology, a fact, however, that was clearly demonstrated by Atkinson's book."

Lloyd was, if anything, consistent in his views. He later (Lloyd 1917a) wrestled a book review into a compounded put-down. "In this country we have nothing [in the way of mushroom books] whatever that is credible. Hard's book is a good representation of a few common species, but Hard never had any very extensive, critical knowledge of the subject. Marshall's book

[1905; see Petersen 2020] presents some very good photographs and figures, but the author of the text was woefully lacking in familiarity with the plants. A number of years ago Atkinson got a little preliminary idea of the subject by sending dried specimens to Bresadola and Morgan, but his book is more noteworthy for what it omits than what it includes. I am told that Atkinson, in the years that have intervened since he wrote his book, has steadily been working with the Agaric subject, and no doubt at the present time could make a better presentation of it. Let us hope for his own sake, as well as that of science, that he will not fail to do it.

"While I have written a good many 'tirades' on the subject, I would not have any of my readers believe that it is from any personal grievances. On the contrary, the mistakes, blunders, and personal foibles of mycological writers have been my chief source of pleasure. I do not know that I have made any enemies except Atkinson and was surprised lately to find that he had taken offense at some of my writings. I have always tried to be good natured in my comments, and as a general thing, I think the parties affected are taking it more as a joke on themselves and an idiosyncrasy of myself (with the exception of Atkinson)."

The nomenclatural rules under which Atkinson wrote were, even at that time, accepted in both Europe and the United States. Ironically, it was Atkinson who offered the motion to cite the originating author's name directly after the binomial (De Wildeman 1912; transl. RHP) at the Brussels Congress of 1910. But the principle had previously appeared in the "American Code of Botanical Nomenclature" (Sect. II, Art. 1.; Bull. Torrey Bot. Club 31: 249—261. 1904) which was distributed to the Vienna Congress of 1905, although not totally adopted there. Atkinson was actually correct, and future nomenclature codes would vindicate his usage. This as opposed to Lloyd, who followed only his own predilection.

Atkinson's death in 1918 (probably of 'Spanish flu') on the Mt. Rainier collecting trip did not assuage Lloyd, however. Some five years later, Lloyd (1923) lobbed yet another missile in Atkinson's direction.

Two decades earlier Atkinson [1902 J. Mycol. 8(3): 106] had published a new genus as '*Tremellodendron* Atk., n.g.' Lloyd claimed that he (Lloyd) had previously sent a specimen of this fungus to Bresadola, who advised him of its uniqueness. Lloyd was incensed at Atkinson's perceived breach of ethics but did not relate the story until well after Atkinson's death. Lloyd (1923) wrote: "As this was exactly what Bresadola had written me as to the same plant several years before, and I knew Atkinson was sending plants to Bresadola, I thought I could

see through his 'new genus.' I met [Atkinson] in Paris some years afterwards and charged him in a mild way of trading on Bresadola's knowledge. He denied it and stated that he (Atkinson) had made the discovery independently and that he had sent it to Bresadola with the statement as to its basidia, and his proposal to call it a 'new genus.' When I met Bresadola shortly afterward I told him what Atkinson claimed, and while Bresadola did not seem to be much exercised over it, not half as indignant as I was, he stated that Atkinson sent him the plant as I had sent it, as *Thelephora Schweinitzii* or *Thelephora pallida*, and that he [Bresadola] had written him as he wrote me, that it had globose cruciate basidia and that the plant was a *Sebacina*. Here was a direct contrary statement by two men, both of whom could not be true. Someone was handling the truth very carelessly and I never thought for a minute it was Bresadola. They criticize me because I hold that personal names should not be added to plant names, but when the system induces men to venture into the realm of falsehood and misrepresentation to justify their names it is high time it should be abolished. If the plain facts were set forth, I doubt if Atkinson knew that *Tremellodendron* had basidia until he was informed by Bresadola." The story was decorated with an effigy of Tso Kay.

Along these lines, Lloyd understood that the tremelloid genus *Sebacina* included both resupinate and non-resupinate forms. He used the fictional Dr. McGinty to jocularly propose the genus *Atkinsonia* to accommodate the non-resupinate forms. He wrote (Lloyd 1916b): "As to generic names it might be changed on a strict limitation of *Sebacina* to resupinate species, on the same principle that *Tremellodendron* was proposed, but I should consider it an artificial classification." (Stevenson & Cash 1936)

Chapter 5. George Edward Massee

The rural agricultural beginnings of 19th–20th century American mycologists has already been discussed (Petersen 2019; Rogers 1981), but the origins of George Edward Massee (30 December 1850 [Wikipedia cites 20 December 1845, death at 71; IF cites 1850, and 1917 Nature article cites "about 1850"]–16 February 1917; Fig. 5) may mirror this idea in England. Born in a rural hamlet of Scampston in East Yorkshire, not far from the North Sea, Massee was born to a family of farmers. Massee's biographer, Ramsbottom (1917), wrote: "It was intended that he should become a farmer as was his father, but, according to his own statement, he did very little good at farming. While working on the farm he became interested in wildflowers and in the larger fungi and drew and painted them. He was sent to the York School of Art, where he gained the

MYCOLOGICAL NOTES.

BY C. G. LLOYD.

No. 34.

CINCINNATI, O. FEBRUARY, 1910.

PROFESSOR GEORGE MASSEE.

FIG. 5. George Edward Massee.
Lloyd. Mycological Notes No. 34. 1916.

national medal for the drawing of flowers from nature." His interest and talent were evident, but encouragement for continued studies came from Dr. Richard Spruce, a well-known botanist-explorer and cousin to Massee's mother, who was in a position to apply some financial lubrication to George's next steps.

Although Massee went into residence at Downing College at Cambridge, Spruce arranged an opportunity for Massee to travel to the West Indies and South America, ostensibly to collect and document orchids. The round trip was on French ships and in the company of Frenchmen and upon his return Massee and a few others joined the fabled (French) Foreign Legion to fight in the Franco-Prussian War. But using her position as mother of an only son, Massee's mother arranged to have him sent home to resume the family's farming.

Upon the death of his father, George and his mother gave up the farm and moved to Scarborough where he taught in public school for some years. During those years he painted many agarics which caught the eye of Mordecai Cubitt Cooke (1825–1914), who subsequently used many of them in his "Illustrations of British Fungi." In 1880 (at 25-30 years of age), Massee published his first paper, "Notes on some smaller fungi."

Mother and son again moved, this time to London and eventually to Kew. George became known as a public speaker on natural history and free-lanced in the Kew Herbarium. In 1891, he published a long paper on selected groups of fungi. In 1892–93, he worked at the British Museum but not in mycology or on herbarium tasks. 1892a saw the first volume of four, BRITISH FUNGUS FLORA. Together with a friend, they purchased Cooke's periodical, GREVILLEA, which had already lasted through 20 volumes. Under Massee's editorship, volumes 21 and 22 appeared, after which GREVILLEA ceased. In 1893, after Cooke retired from Kew, Massee was appointed Principal Assistant in Cryptogams.

Through all of this, Massee never lost interest in natural history and regularly attended and led forays, especially for fungi. In 1896, the British Mycological Society was founded and Massee was elected its first president, serving for two years. Over the next two decades he reinforced his reputation as the reigning mycologist in England, publishing numerous papers and several books. He retired from Kew in 1915 (probable age 65) and moved to Sevenoaks. In a biography not totally laudatory, Ramsbottom (1917) wrote: "Massee ranks with Berkeley and Cooke as one of the foremost mycologists of this country. He published over two hundred and fifty original papers."

A generation younger, George Edward Massee was a successor and protégée of Mordecai Cubitt Cooke (1825—1914). Cooke was multi-talented and an

entrepreneur, mycologist, artist/illustrator, and writer (Ramsbottom 1915). His published plates of "Illustrations of British Fungi" filled 12 volumes, and his books and papers were voluminous. He founded the journal GREVILLEA which, in time, he sold to Massee and a co-investor (Massee 1892b). Cooke was attached to the Royal Botanic Gardens at Kew, and Massee followed suit.

Lloyd was not enthusiastic with Cooke's writing or artistry (Lloyd 1915c). To Lloyd's mind, the writing represented quantity, not quality, and Cooke's illustrations were often artist's reconstruction of dried specimens in Kew's herbarium (Lloyd 1915c). Cooke's biographer (Ramsbottom 1915) passed on the quip: "A saying current among European mycologists is, that Cooke was so talented he could draw a picture of an agaric that he had never seen." Lloyd's opinion of Cooke's prodigious output was mixed, and his commentary on Massee's work seemed to start innocently at first but grew less appreciative over time.

Lloyd (1904), having spent 14 months in Europe with protracted stays in Kew, Paris, Uppsala, and Berlin, furnished very brief sketches of several workers he had met. Of those at Kew: "[George Massee] is a man I should say about fifty years, an excellent conversationalist and I am told a very entertaining public speaker." Both these attributes were said of Cooke as well. No judgement was offered as to the direction or quality of Massee's research. (That would come before long.)

The subscription price for receiving Lloyd's publications was the donation of specimens to Lloyd's 'Museum.' Each package was inspected and specimens identified. Almost always, the donor and his collections were mentioned in print. In this exchange, however, correspondents also made inquiries to be answered individually by Lloyd. Lloyd (1906) wrote that he was overwhelmed with correspondents' queries about available American mushroom books. Instead of answering each inquiry separately, Lloyd distributed a brief review of the available books. After Atkinson's and Marshall's books came Stevenson's book from England. Last, he wrote: "Massee's BRITISH FUNGUS FLORA, four volumes [Massee 1892a, 1893a,b, 1895], is the latest English work and is largely used in England. The arrangement of the genera departs from all other works, and it is so difficult to find anything in it that I rarely use it." His opinion of Massee then lay dormant, with a photo portrait and brief biographical sketch featured a bit later (Lloyd 1910).

Although Massee succumbed to influenza in February 1917 (Ramsbottom 1917), some months later Lloyd (1917b) divested himself of a few derogatory interactions he had had with selected mycologists in high places. The general

theme was to put these 'elites' in their place. The following is an example. "I told Massee once that Professor Burt said that his [Massee's] new genus '*Heterobasidium*' was a bull [an early 20th century word denoting speculation and/or deception], and days afterward he told me that he had no doubt that Burt was right. This was ten years ago, but he [Massee] never mentioned it in print to the day of his death. I asked Professor Burt if he intended to show it up, and he said he did, but in a 'nice way.' The following was his 'nice way:' My own study of the type of *Heterobasidium chlorascens* Massee, which is the type species of the genus, failed to locate any basidia whatever.'

"I readily concede that this is a nice way in dealing with this bull, but it impresses me also as being a very nice case of whitewash, and its treatment in this way only encourages others to 'take a chance' on such work. One cannot cure a cancer by applying a coat of soft soap. In those days Burt did a lot of indirect toadying to Massee. But recently, since Massee has been shown up in his true color by another [worker], and is dead, Burt comes out and calls him a promotor of myths. Burt is a brave man, when all danger is past."

Two birds with one stone. Far from being muzzled, Massee's written output was relatively prodigious, including at least three book-length works (Massee 1902, 1906, 1911).

Just as was Lloyd's opinion of Massee's idol, M.C. Cooke, Massee's oeuvre was judged harshly. Even his biographer (Ramsbottom 1917) wrote: "But though often brilliant, he [Massee] was often careless: if he had had any capacity whatever for taking pains, he would have been a genius. He had a clear mind and was regardless of authority: although he often totally disregarded results which would have prevented him reaching some other startling conclusions." Echoing Lloyd's opinion (Ramsbottom 1917): "[Massee] commenced when Berkeley was *facile princeps* [his italics] in British mycology; Cooke followed and then Massee naturally forged ahead on Cooke's retirement. But times were changing and though Massee's opinions in systematic questions received the consideration due to his extended knowledge, when he attempted to criticize—or even ridicule—branches of the subject in which he had obviously no practical experience, he did not add to his reputation. His cynicism often led him to say, or even to do, things which were much resented."

Even later, while superficially dealing with the work of Mr. Charles Crossland (1844–1916), Lloyd (1924c) confessed the following: "When we were in correspondence with Mr. Crossland for some years before his death, we are ashamed to admit that we had a kind of mental prejudice against him. We do not know exactly the reason for it. Perhaps because he was always

closely associated with Massee, and we could never see any good in Massee's work." And thus was Massee dismissed.

Chapter 6. Edward Angus Burt

Edward Angus Burt (9 April 1859–27 April 1939; Fig. 6), was an almost exact contemporary of C.G. Lloyd and, like Lloyd, was born on a farm. The family soon purchased a small dairy in Saratoga County, New York, not far from Albany, the state capital. In spite of the death of his father when he was five, his mother was able to maintain a few cows and brought in a small income from butter. As reported by Burt's biographer (Dodge 1979), farm chores left time for Edward to investigate the local environment both for table food and, incidentally, interesting plants ripe for naming. His education was in local schools, but after completion, he worked for a farmer who was somewhat more educated and a member of the school board. One thing led to another, and Burt was made aware of the State Normal School in Albany which offered a course in botany. Burt applied and entered.

In his senior year, Burt was offered a job teaching penmanship, bookkeeping, and English at the Albany Academy, where he taught for five years. He then filled a vacancy back at the State Normal School in 1891, teaching natural history. Serendipitously, he was offered an opportunity to enter Harvard as a sophomore without an entrance examination. There, of course, he came under the influence of Professors William G. Farlow and Roland Thaxter. Burt was awarded a bachelor's degree in 1893 and stayed on for an A.M. in 1894 and Ph.D. in 1895 (at 36 years of age). Although his dissertation was on phalloids, he expressed his intention to work on the *Thelephoraceae*, at that time a large and very variable fungal group.

Burt's time at Harvard was followed by 18 years on faculty at Middlebury College, Vermont. Teaching loads were heavy and diverse—several botany courses, forestry, geology, zoology, comparative anatomy, bacteriology—leaving little time for research. Grading exams, mentoring students, and raising a growing family bit into out-of-class time. Vacations were planned around visits to Harvard (Cryptogamic Herbarium) and Philadelphia (Schweinitz herbarium). He spent one summer in Europe sectioning the type specimens in the larger herbaria and collecting Friesian species in the vicinity of Uppsala, Femsjö, and Stockholm.

In 1912, George T. Moore succeeded William Trelease as Director of the Missouri Botanical Garden and Dean of the Henry Shaw School of Botany at Washington University, St. Louis. Moore led an expansion of

both institutions, and one of the faculty hired was E.A. Burt as librarian and mycologist at the Garden. Burt taught courses but had significantly more time for his research. Moore had already established the Annals of the Missouri Botanical Garden, so Burt had a ready journal in which to publish each part of his monograph. Some 20 years later, Burt finished the *Thelephoraceae* monograph, and suffering from degenerating eyesight, he retired in 1933. His wife died in 1938 and Burt succumbed in 1939.

Initially, Lloyd's judgement of Burt was laudatory. As mentioned above, his praise was tangential (Lloyd 1915d): "I am gratified that Mr. Overholts has gotten back to the realms of rational mycology. I presume that this is due to the conservative influence of Professor Burt [by 1915 on faculty at Washington University]." (See also excerpts from Lowe letter above in Chapter 2.)

Two years later, Lloyd (1917a: p. 652) featured Burt's photo portrait as the cover of one of his Mycological Notes: "We hold Prof. Burt to be one of the few really earnest, scholarly men at work on American mycology. To his specialty, the *Thelephoraceae,* he has given years of careful and close study.

"Fifteen or twenty years ago, Prof. Burt spent a season in Europe, studying such specimens as he collected, or found at Kew or Uppsala. It is to be regretted that he did not go to Leiden, the home of Persoon's specimens, where are to be found the 'real' types of many of these species. I have not much sympathy with the idea, now 'legal,' of starting [mycological nomenclature] with Fries, particularly in the cases where he did not get Persoon's species right, and there are many cases of this kind among the resupinates.

"Prof. Burt has been slow in publishing, and it is only in the last two or three years that we have had much benefit from his studies. We trust that his work will not be interrupted, until finished. In our opinion, the resupinates will never be a very popular study, as long as they involve as much work as at present, sectioning each specimen. We think the study can be made more practical, but that is for the future.

"Prof. Burt and Bresadola are, we believe, the only two conscientious 'priorists' living. This very quality, indeed, has led Bresadola into many illogical conclusions as to the names he uses, and judging from Burt's troubles with '*Septobasidium pedicellatum*,' he will meet the same difficulty.

"Prof. Burt is a very careful, safe, conservative man, thorough scholar, a patient worker, a graduate of the best mycological college in our country (Harvard), and he is working on the most difficult problems existing in connection with American mycology."

MYCOLOGICAL NOTES.

BY C. G. LLOYD.

No. 47.

CINCINNATI, O. APRIL, 1917.

PROFESSOR EDWARD ANGUS BURT.

FIG. 6. Edward Angus Burt.
Lloyd. Mycological Notes No. 47. 1917.

Later that year, however, Lloyd (1917b: 4) began to carp: "Burt has been working for years on thelephoraceous plants. He has done in the main good work on the subject. But he has been slow, slower than a snail man. He has part of his work published and may finish it if he reaches the age of Methuselah. They tell a story on this snail man. He described a new species of snail. One of his friends said he must have met it. Surely he never overtook it."

Over time, Lloyd found more reasons to chide: "Recently one of Prof. Burt's students found in our museum a species of *Hydnangium* from Japan, which he published and referred to *Rhizopogon violaceus*. It has no more resemblance to [*Rhizopogon*] than a cannon ball has to a blown-out egg shell. If this is the kind of 'Mycology' Prof. Burt teaches he should take up Egyptian hieroglyphics, for from the results of his teaching his student knew about as much of one subject as he did of the other, if this is a sample of it." [Lloyd 1923, p. 1201, under *Gallacea violacea*]

Later in the same note (Lloyd 1923: 1213, under "Pointed comments"): "Of the species that pass current under the fraudulent advertisement 'Berkeley and Curtis' there is not a single type in the Curtis herbarium and never has been and Burt knows it. ... Fifty years later Prof. Burt, a graduate of Harvard, not only knowingly aims to perpetuate this ancient fraud, but goes a step further and misrepresents that the types are in the Curtis herbarium. We might have patience with a four-year-old child telling these little fibs but a man, old enough to be a grandfather, ought to have passed that childish stage, and confine himself to the truth." (The story rated a Tso Kay symbol.)

Not a year later, yet another chastisement (Lloyd 1924b: 1260 under Edge of the Tombs, with Tso Kay imprint): "[Burt's] figure [Plate 282 exhibit F) which was published to represent *Clavaria mucida* was not found in the tomb of Tutankhamen, as would naturally appear, but in a recent production of Prof. Burt in his post-Osler days. The art of illustration was a much more advanced state in the days of old King Tut, 3,000 years ago, than Burt is now employing. In order to show how utterly bad it is, we reproduce a good figure (2769) of *Clavaria mucida* from Atkinson. What a pity it is for an old man to issue such work as Burt is now publishing in 'Illustrations' and other matter. After graduating from Harvard, had he taken a post-graduate course in some kindergarten, he could have greatly improved his work in this direction. And such is science, as produced by collegiate graduates." A direct put-down for an 'elite.'

In the very next Mycological Note (Lloyd 1924b: 1312, under *Polyporus sideroides*): "The type is at Leiden (Fig. 3031). It varies at times, having no

stipe, and a specimen of the sessile form was called by Léveillé *Polyporus Korthalsii*. Then Léveillé did not help the matter when he went back to Paris and labeled a specimen of *Fomes senex*, which has no suggestion whatsoever, as being his *Polyporus Korthalsii*. Recently Burt, who knows about as much about foreign *Polyporus* as Léveillé did, and who knows absolutely nothing about this particular case, recently published *Fomes senex* as "*Fomes*" *Korthalsii* (sic) and assumes to pass on questions which he has, and never had, any way of knowing anything at all about. This kind of work is only a bluff and Burt ought to be ashamed of it, and such "work" does not advance "knowledge" one iota and only makes a mess."

Lloyd died in 1926; Burt lived until 1939.

Chapter 6. What's the point?

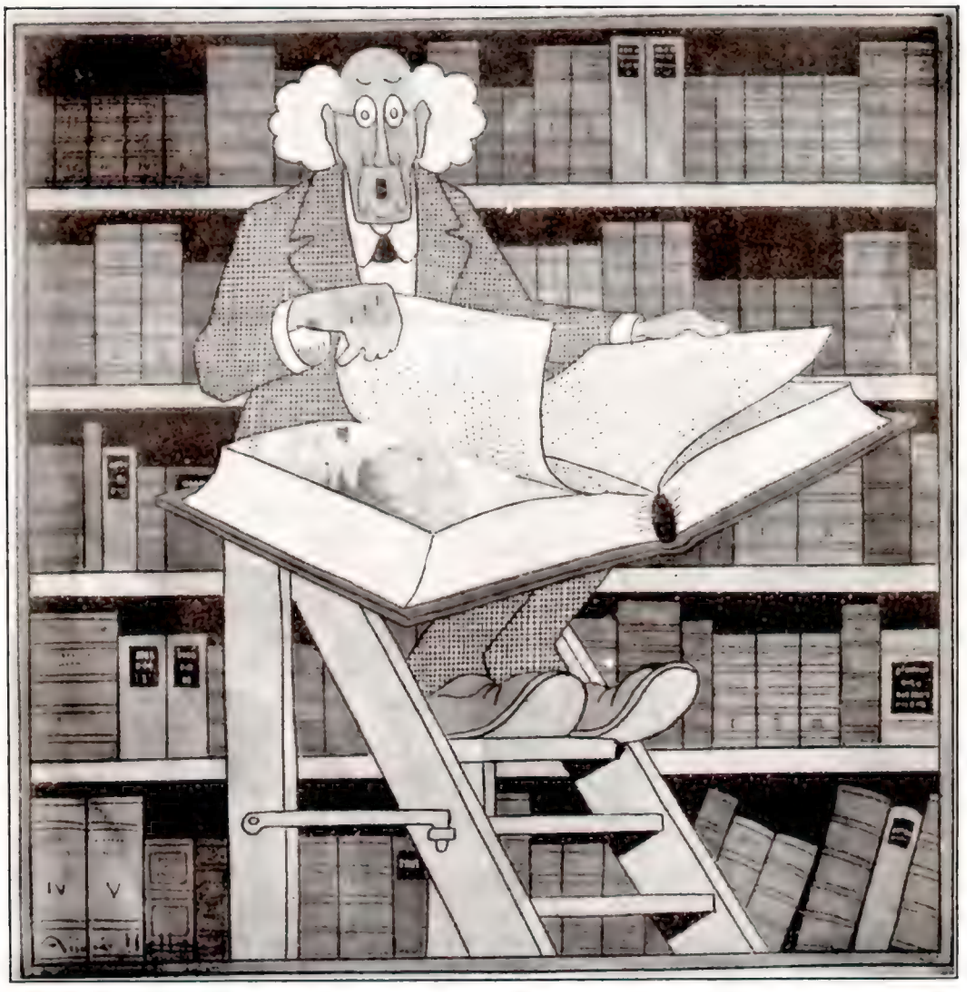
Reviewers, editors and journal ethics. Acquaintance with scientific organizations from the 17–19th centuries reveals fraternal groups. The election of new members, the "reading" of research results to societal conclaves in rooms serving as the society's home, publication of printed summaries of these results were all performed within groups of like-minded men. The Linnaean Societies (at least in England and Sweden) and the French and Russian Academies of Sciences testify to this idea. The inclusion of "Acts of ..." or "Proceedings of..." indicate papers read to a membership meeting and published together with other business performed at the meeting. The increase of scientists engaged in narrower subdisciplines led, for example, to segregate divisions within the American Association for the Advancement of Science (AAAS, with Science as its journal) followed by formation of journals favoring these subdisciplines. The American Journal of Botany, Phytopathology, and Journal of Mycology were examples. A few years later came the Journal of Plant Physiology. Moreover, the readership, whether academic or lay, represented a much more egalitarian group, often of agrarian background. Initial editors were usually leaders of the vocal group lobbying for the journal itself. In Journal of Mycology, although there were three founders, W.A. Kellerman controlled what appeared on its pages, from papers by authors not involved with the machinations of the journal itself to "mycological news" at the end of most issues. William A. Murrill served in the same role for some years with Mycologia. The same applies for John Merle Coulter and Botanical Gazette. The fate of the journals, however, depended on the subscribers; without them, slow starvation was assured.

On the face of it, Lloyd's self-supported mycological publications were incongruous. The major differences were both financial and ethical. Journal of Mycology, for example, although surely supplemented by Kellerman, was dependent on subscribers for its financial existence, while Lloyd was not hampered by such trivialities. The cost of subscription was only the cost of postage to send specimens to Lloyd. Ethically, scientific journals were self-limited to reports of scientific results, with 'news' always positive and tepid; Lloyd was not corralled in this way. That he used his freedom to deride others was a unique idiosyncrasy.

Our current modus operandi of strenuous pre-publication reviews, much rewriting, long lists of co-authors and considerable 'in-press' time is a 20th century phenomenon. Anonymous reviews aim to ensure that the undergirding science and conclusions are valid.

The sowing of seeds. Lloyd's printed publications were only one facet of his persona. Careful readings of his writings show that he travelled widely and often. He mentions Washington (DC), New York, Ellis's home in New Jersey, Morgan's farm in Ohio and other domestic destinations (I don't remember any mention of Harvard in Cambridge, Mass.). Internationally, aside from his very early trip to Samoa, his travel was to Europe. After all, the great herbaria of Europe were homes for classic collections on which species were based, as well as collections from the colonies in Africa, Asia, and other far-off climes. European destinations included Kew and British Museum, the herbarium at the Caroline University in Upsala and the national museum in Stockholm, the royal botanic gardens herbarium in Paris, the national museum in Berlin, universities in Italy and other less stellar locations. Everywhere he went he met, conversed with, used and befriended workers. Everywhere he went those workers took his measure, surely shared their opinions with co-workers and reached conclusions about American mycology as represented by Lloyd. In the same period as Lloyd's European travel, other American mycologists, at least Farlow, Thaxter, Kellerman, Atkinson, Coker, Arthur, Shear, Burt, and others also visited the same destinations, but took no opportunity to describe or lampoon their hosts. The letter from Lowe referenced above, however, paints a very different picture of Lloyd than that implied by his writings. It was surely Lloyd's intimidating pen that led Donk (and Lowe) to find Lloyd guilty of stunting American mycology for a half-century.

That Lloyd's writings were interesting to an audience outside the US can be seen by the geographic origins of specimens he acknowledged publicly. A microcosmic example, though, can be reported thanks to Dr. Shaun Pennycook



Professor McGinty discovering the genus Anthropomorphus.

The picture is a copy of an oil painting that hangs in the rooms of the Poseyville Fungus Forage Club, and shows the Professor in the act of making his momentous discovery.

Fig. 7. Prof. N.J. McGinty.
Lloyd. Letter No. 48. 1913.

(pers. comm.). Dr. Gordon Herriot Cunningham (1892–1962), New Zealand's first resident taxonomic mycologist (Ramsbottom 1964; McKenzie 2004), received Lloyd's publications. He scribbled notes in the margins which, in the case of Lloyd, were often not complimentary. Pennycook (pers. comm.) offered just a few of these jottings, such as "Confused argument of a half-baked crank" (on Lloyd's p. 1341). When Lloyd criticized someone, Cunningham cracked "Exactly the same can be said of the famous Lloyd!" (p. 1267), or "What about your phalloid eggs named as Hysterangiums, Mr. Lloyd!" (p. 1288). So, someone was paying attention a half-world away from Cincinnati.

Lloyd, himself, has come under scrutiny over time. For example, Donk (1951: 205) took Lloyd to task as follows: "C.G. Lloyd coined and published

several names in a jocular spirit. Thus, in his 'Mycological Writings,' fictitious Prof. McGinty acted as the author of a number of new names … Lloyd's intention was to ridicule and imitate certain mycologists he named as 'name jugglers,' 'splitters,' and 'new species hunters.' One point emerges incontestably: the McGinty names were not acceptable to Lloyd himself, the publishing author. However, he repeatedly admonished future authors not to forget the existence of the McGinty names, which he apparently considered validly published. This is clear: these names belong to the class of nomina provisoria! not being accepted by the publishing author, they were 'merely proposed in anticipation of the future acceptance of the group concerned, or of a particular circumscription, position, or rank of the group,' [quote from the governing International Code of Botanical Nomenclature] and hence were not validly published. Many of the McGinty names were often purposely and somewhat maliciously coined after bad examples and served as punishment in store for those who dared to deviate from the usually rather crude taxonomical views to which Lloyd adhered. A number of the names in question were published as nomina nuda. Some were taken up by subsequent authors and validly published on such an occasion."

The denigration of elites. Lloyd was mycologically (at least) self-educated. His stated mentor was Andrew P. Morgan, also mycologically self-educated. In fact, there is no evidence that Lloyd was formally educated past local-school level. In such circumstances, some individuals would be supplicants of the elites of their field of interest. Instead, Lloyd, usually within the bounds of his own myopia, seemed to gloat at his perceived superiority over the credentialed workers. This is most clearly seen in his needling of Edward A. Burt, a triple-degree recipient from Harvard, termed by Lloyd as "the best college in the country." While such belittling was amusing to some readers (and probably mystifying to foreigners), it was unnecessary to make the point.

Cookie-cutter biographies. A close look at the biographies of mycologists and plant pathologists of the late 19th and first half of the 20th century (Hesler 1975, Petersen 2019) reveals a least common denominator of rural, agricultural origins. Again and again we find farm boys. [Remember, history of that era reveals very few women gaining educational credentials or university faculty positions, not terribly surprising given that national women's suffrage was gained only toward the end of the period covered, 1920]. Thus, professional botanists were often farm boys who had become fascinated with the natural world about them. Within this "theorem" there seems to have been at least

two "corollaries." First, the attraction of natural history led to naming: what were the names of the organisms confronted, how were they grouped and what traits required observation to arrive at names, altogether more fastidiously known as taxonomy. The second "corollary:" from a large roster of candidates, it was a sign of the times that the farm boys we recognize were "discovered" by someone of authority. It could be a teacher, it could be a family relative, a neighbor, but someone who could recognize talents and encourage a path to further education. The knack of further selection and mentoring sometimes befell college professors (Petersen 2021).

Today's educational and scientific world has reached a significant level of equality of opportunity. Any meeting of a scientific society testifies that females are not only demographically common but are considered at least as promising as males. Entrance requirements for college, while often daunting, have been "flattened:" SAT scores, scholarships extended to less-wealthy families, and demographic distribution are all aimed at levelling the playing field. Several momentous punctuations can be identified in the "progress" from the period narrated above and the present: The Great Depression, two World Wars, the "GI Bill of Rights," Sputnik, the rise of feminism, "Affirmative Action," "Black Lives Matter" and others. Numerous Ph.D. dissertations have surely been (and surely will be) written on this societal evolutionary process.

Acknowledgements

Sincere thanks are offered to two reviewers, Dr. Hal Burdsall and Dr. Andrew Miller. The manuscript was improved by their efforts. Dr. Shaun Pennycook supplied the information about G.H. Cunningham's marginal notes. Posthumous thanks are cheerfully extended to Dr. Lewis Wehmeyer of the University of Michigan, from whom the author's set of Lloyd's writing were obtained: it is evidence of archival genealogy. Mycotaxon's editors pommeled the bibliography into acceptable shape: they are due exceptional thanks.

Literature cited

Atkinson GF. 1897a. Some fungi from Alabama. Bulletin of the Cornell University (Science) 3(1): 1–50.

Atkinson GF. 1897b. (September). Studies and illustrations of Mushrooms. I. Cornell Univ. Agric. Exp. Sta., Bull. 138: 337–366.

Atkinson GF. 1900. Studies of American fungi. Mushrooms edible, poisonous, etc. Ithaca, NY. 275 p. https://doi.org/10.5962/bhl.title.3909

Atkinson GF. 1901. Studies of American fungi. Mushrooms edible, poisonous, etc. (Second edition). Ithaca, NY. 322 p. https://doi.org/10.5962/bhl.title.1636

Blackwell WH, Powell MJ. 1996. An analysis of works of and upon, Curtis Gates Lloyd. Mycotaxon 58: 353–374.

Burdsall HH Jr, Miller AN, Cox DF, Parker AD. 2010. An unexpected pilgrimage. Inoculum (Newsletter of the Mycological Society of America) 61(5): 1–3.

De Wildeman É (ed.). 1912. Actes du III^{me} Congrès International de Botanique, Bruxelles 1910. Vol. I. Compte-rendus des Séances, Excursions, etc. 373 p.

Dawson J. 2007. Who's in a name? *Amanita atkinsoniana.* New Jersey Mycological Association Newsletter 37 (6 November–December).

Dodge CW. 1979. Edward Angus Burt (1859–1939). Occasional Papers of the Farlow Herbarium of Cryptogamic Botany, No. 4: 1–7. https://doi.org/10.5962/p.305847

Donk MA. 1951. The generic names proposed for Hymenomycetes – I. "*Cyphellaceae.*" Reinwardtia 1(2): 199–220.

Farlow WG, Thaxter R, Bailey LH. 1919. George Francis Atkinson. American Journal of Botany 6: 302–302. https://doi.org/10.1002/j.1537-2197.1919.tb05543.x

Fergus CL. 1955. An index to L.O. Overholts' Mycological Notes. Mycologia 47(1): 140–144. https://doi.org/10.1080/00275514.1955.12024436

Fitzpatrick HM. 1918. George Francis Atkinson. Science 49: 371–372.

Fitzpatrick HM. 1927. Curtis Gates Lloyd. Mycologia 19: 153–159. https://doi.org/10.1080/00275514.1927.12020540

Hard ME. 1908. The mushroom, edible and otherwise, its habitat and its time of growth. Ohio Library Co. 609 p. + 504 fig.

Hesler LR. 1975. Biographical sketches of deceased North American mycologists including a few European mycologists. MSS, unpaged. [Special Collections, library of the University of Tennessee, Knoxville.]

Hill JB, Overholts LO, Popp HW. 1936. Botany, a textbook for colleges. McGraw-Hill Company. 672 p.

Kern FD. 1948. Lee Oras Overholts. Mycologia 40(1): 1–5. https://doi.org/10.1080/00275514.1948.12017687

Korf RP. 1991. An historical perspective: mycology in the departments of Botany and Plant Pathology at Cornell University and the Geneva Agricultural Experiment Station. Mycotaxon 40: 107–128.

Lloyd CG. 1899a. (January) Fourth report on The Lloyd Mycological Museum, Cincinnati, Ohio, for the year 1898.

Lloyd CG. 1899b. Specimens from correspondents. Mycological Notes (No. 4): 25.

Lloyd CG. 1904. (June) Notes of travel. Mycological Notes (No. 17): 173–188.

Lloyd CG. 1906. The mycological situation in America. Letter (No. 10): 1–8.

Lloyd CG. 1907a. (July) Boudier's plates. Mycological Notes (No. 27): 348.

Lloyd CG. 1907b. (October) Atkinson's Break. Mycological Notes (No. 28): 363.

Lloyd CG. 1909. Professor Hard's book. Mycological Notes (No. 34): 429–430.

Lloyd CG. 1910. (February) Mycological Notes (No. 34): 445–460.

Lloyd CG. 1911. (October) Synopsis of the section *Ovinus* of *Polyporus.* Publ. Priv., Cincinnati, Ohio. Pp. 73–94.

Lloyd CG. 1912. (March) Synopsis of the stipitate polyporoids. Publ. Priv. Cincinnati, Ohio. Pp. 95–208.

Lloyd CG. 1915a. (January) Letter (No. 54): 1–8.

Lloyd CG. 1915b. (June). The genus *Polyporus.* Publ. Priv. Pp. 291–390.

Lloyd CG. 1915c. (undated) Letter (No. 57): 1–4.

Lloyd CG. 1915d. (October) Letter (No. 59): 1–8.

Lloyd CG. 1916a. (June) Help! Help! Help! Mycological Notes (No. 42): 584.

Lloyd CG. 1916b. *Polyporaceae* of the Middle-Western United States, by L.O. Overholts. Mycological Notes (No. 42): 586–588.

Lloyd CG. 1917a. (April) Mycological Notes (No. 47): 653–668.

Lloyd CG. 1917b. (December) The myths of mycology. Publ. Priv., Cincinnati, Ohio. Pp. 1–16. (Revision 1924)

Lloyd CG. 1920. (September) Mycological Notes (No. 64): 985–1029.

Lloyd CG. 1923. (June) Mycological Notes (No. 69): 1186–1218.

Lloyd CG. 1924a. (January) Mycological Notes (No. 71): 1237–1268.

Lloyd CG. 1924b. (June). Mycological Notes (No. 72): 1269–1300.

Lloyd CG. 1924c. (October) Mycological Notes (No. 73): 1301–1332.

Massee G. 1892a. British fungus-flora. A classified text-book of mycology. Vol. 1. George Bell & Sons, London. 432 p. https://doi.org/10.5962/bhl.title.19448

Massee G. 1892b. Personal notice. Grevillea 20(96): 124. [Announcement that Massee will take over Grevillea.]

Massee G. 1893a. British fungus-flora. A classified text-book of mycology. In three volumes. Vol. 2. George Bell & Sons, London. 460 p. https://doi.org/10.5962/bhl.title.19448

Massee G. 1893b. British fungus-flora. A classified text-book of mycology. Vol. 3. George Bell & Sons, London. 512 p. ["As it has been found impossible to complete this work conveniently in the three volumes originally contemplated, the subject will be concluded in a Supplementary Volume which will be issued shortly."] https://doi.org/10.5962/bhl.title.19448

Massee G. 1895. British fungus-flora. A classified text-book of mycology. Vol. 4. George Bell & Sons, London. 522 p.

Massee G. 1902. European fungus flora. *Agaricaceae*. Duckworth & Co., London. 27 p. https://doi.org/10.5962/bhl.title.19510

Massee G. 1906. Text-book of fungi. Duckworth & Co., London. 427 p.

Massee G. 1911. British Fungi with a chapter on lichens. George Routledge & Sone, London. 551 p.

McKenzie EHC. 2004. The history of taxonomic mycology in New Zealand. Fungi of New Zealand / Ngā Harore o Aotearoa, vol. 1. Fungal Diversity Research Series 14: 49–80.

Murrill WA. 1902. The *Polyporaceae* of North America – I. The genus *Ganoderma*. Bulletin of the Torrey Botanical Club 29: 599–608. https://doi.org/10.2307/2478682

Murrill WA. 1903a. The *Polyporaceae* of North America – II The genus *Pyropolyporus*. Bulletin of the Torrey Botanical Club 30: 109–120. https://doi.org/10.2307/2478882

Murrill WA. 1903b. The *Polyporaceae* of North America – III. The genus *Fomes*. Bulletin of the Torrey Botanical 30: 225–232. https://doi.org/10.2307/2478780

Murrill WA. 1903c. The *Polyporaceae* of North America – IV. The genus *Elfvingia*. Bulletin of the Torrey Botanical Club 30: 271–281. https://doi.org/10.2307/2478555

Murrill WA. 1903d. The *Polyporaceae* of North America – V. The genera *Cryptoporus*, *Piptoporus*, *Scutiger* and *Porodiscus*. Bulletin of the Torrey Botanical Club 30: 423–434. https://doi.org/10.2307/2478728

Murrill WA. 1904a. The *Polyporaceae* of North America – VI. The genus *Polyporus*. Bulletin of the Torrey Botanical Club 31: 29–41. https://doi.org/10.2307/2478751

Murrill WA. 1904b. The *Polyporaceae* of North America – VII. The genera *Hexagona*, *Grifola*, *Romellia*, *Coltricia* and *Coltriciella*. Bulletin of the Torrey Botanical Club 31: 325–348. https://doi.org/10.2307/2478798

Murrill WA. 1904c. The *Polyporaceae* of North America – VIII. The genera *Hapalopilus*, *Pycnoporus* and new monotypic genera. Bulletin of the Torrey Botanical Club 31: 415–428. https://doi.org/10.2307/2478892

Murrill WA. 1904d. The *Polyporaceae* of North America – IX. *Inonotus, Sesla* and monotypic genera. Bulletin of the Torrey Botanical Club 31: 593–610. https://doi.org/10.2307/2478612

Murrill WA. 1905a. The *Polyporaceae* of North America – X. *Agaricus*, *Lenzites*, *Cerrena*, and *Favolus*. Bulletin of the Torrey Botanical Club 32: 88–103. https://doi.org/10.2307/2478510

Murrill WA. 1905b. The *Polyporaceae* of North America – XI. A synopsis of the brown pileate species. Bulletin of the Torrey Botanical Club 32: 353–371. https://doi.org/10.2307/2478499

Murrill WA. 1905c. The *Polyporaceae* of North America – XII. A synopsis of the white and bright-colored pileate species. Bulletin of the Torrey Botanical Club 32: 469–493. https://doi.org/10.2307/2478463

Murrill WA. 1906. The *Polyporaceae* of North America – XIII. The described species of *Bjekandera*, *Trametes*, and *Coriolus*. Bulletin of the Torrey Botanical Club 32: 633–656. https://doi.org/10.2307/2478704

Overholts LO. 1911. The known *Polyporaceae* of Ohio. Ohio Naturalist 11: 353–73.

Overholts LO. 1914. The *Polyporaceae* of Ohio. Annals of the Missouri Botanical Garden 1(1): 81–155. https://doi.org/10.2307/2990008

Overholts LO. 1915a. Comparative studies in the *Polyporaceae*. Annals of the Missouri Botanical Garden 2: 667–730. https://doi.org/10.2307/2989954

Overholts LO. 1915b. The *Polyporaceae* of the Middle-Western United States. Washington University Studies 3(1): 3–98.

Overholts LO. 1967. The *Polyporaceae* of the United States, Alaska, and Canada. University of Michigan Press (2nd Edition). 466 p. + 132 pl. [Prepared for publication by Josiah L. Lowe.]

Petersen RH. 2019. North American mycology comes of age: the 19th century participants and their roles. Mycotaxon 134: 1–110. https://doi.org/10.5248/134.1

Petersen RH. 2020. A mycologist on mushroom books: 1901. Fungi (Magazine) 13(3): 9–17.

Petersen RH. 2021. Four master teachers who fostered American turn-of-the-[20TH]-century mycology and plant pathology. Mycotaxon 136: 1–58. https://doi.org/10.5248/136.1

Ramsbottom J. 1915. Mordecai Cubitt Cooke. (1825–1914). Transactions of the British Mycological Society 5(1): 169–185. [With group photo including Cooke, Charles Crossland, Carleton Rea, and George Massee.] https://doi.org/10.1016/S0007-1536(14)80017-X

Ramsbottom J. 1917. George Edward Massee (1850–1917). Transactions of the British Mycological Society 5(3): 469–473. https://doi.org/10.1016/S0007-1536(14)80050-8

Ramsbottom J. 1964. Gordon Harriot Cunningham, 1892–1962. Biographical Memoirs of Fellows of the Royal Society 10: 14–26. https://doi.org/10.1098/rsbm.1964.0002

Rogers DP. 1981. A brief history of mycology in North America, augmented edition prepared for the 50th anniversary of the Mycological Society of America. Hamilton I. Newell, Amherst, MA & Harvard Univ. Printing Office, Cambridge, MA. 86 p.

Simons CM. (undated reprint) Curtis Gates Lloyd. National Encyclopedia of Medicine Quarterly: 1–5.

Stevenson JA, Cash EK. 1936. The new fungus names proposed by C.G. Lloyd. Lloyd Library Bulletin 35(8). 209 p.

Trollope A. 1882. The fixed period. (Reprint ed., University of Michigan). 207 p.